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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/717,089 | 11/19/2003 | David G. Converse | C-2593 | 7010 |
| 7590 | 03/01/2005 | | | EXAMINER |
| M. P. Williams 210 Main Street Manchester, CT 06040 | | | | CANTELMO, GREGG |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1745 | |

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/717,089 | CONVERSE ET AL. | |
| | Examiner Gregg Cantelmo | Art Unit 1745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
 - 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Response to Preliminary Amendment

1. The preliminary amendment received September 21, 2004 has been entered.

Election/Restrictions

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I, drawn to a power plant and method of operating the power plant having a storage device connected in parallel with the fuel cell stack which always follows the voltage of the fuel cell stack (claims 1-3 and 7)

Species II, drawn to a power plant and method of operating the power plant having a storage device connected to a DC/DC converter providing voltages which are multiples or fractions of the voltage between the power lines (claims 1-6)

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Species I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of being used together and have different modes of operation and functionality as understood from the specification. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II and vice versa, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. M.P. Williams on February 17, 2005 a provisional election was made with traverse to prosecute the invention of species II, claims 1-6. Affirmation of this election must be made by applicant in replying to this

Office action. Claim 7 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

4. No IDS appears to have been filed with the application prior to this office action.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-324562-A (JP '562).

JP '562 discloses a fuel cell power plant comprising a fuel cell stack 1, fuel source 31 connected to stack 1, electric power lines connected to load 34, 36 which controls the fuel pump (translated paragraph [0011]), an electric storage device 2 connected in series to a DC/DC converter 33 and connected between the output lines to load 34 (Fig. 7 as applied to claim 1).

Device 2 can be a capacitor or battery (Fig. 7 and translated paragraph [0015] as applied to claims 2 and 3).

JP '562 discloses a fuel cell power plant having a fuel cell stack 1 with electric output lines to load 34 comprising: an electric storage device 2 associated with the stack 1, means 33 for providing voltage to the storage device 2 (the DC/DC converter being a means which can function in the manner recited in claim 4, that is providing a voltage to device 2 which is either a multiple or fraction of the voltage between output lines to load 34) and means 36 for controlling the voltage (Fig. 7 and translated paragraphs [0006] and [0010]-[0015] as applied to claim 4).

JP '562 discloses a method of operating fuel cell power plant having a fuel cell stack 1 with electric output lines to load 34 and an electric storage device 2 associated with the stack 1, the method comprising: providing voltage to the storage device 2 via DC/DC converter 33, the DC/DC converter disclosed as doubling the voltage to device 2 (translated paragraph [0014]), and controlling the voltage to the device in response to the voltage related to the load (Figs. 6 and 7 and translated paragraphs [0006] and [0010]-[0015] as applied to claim 5).

As discussed above the DC/DC converter doubles the voltage to the device 2 (as applied to claim 6).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPAT No. 6,737,762 (Koenig) discloses a fuel cell power plant in Fig. 6 wherein the DC/DC converter and storage device are connected in series

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across the output lines to the load. JP 2003-304606A (JP '606) discloses a fuel cell power plant in Fig. 3 wherein the DC/DC converter and storage device are connected in series across the output lines to the load. KR 2003-050139 discloses a fuel cell power plant wherein the DC/DC converter and storage device are connected in series across the output lines to the load.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. FAXES received after 4 p.m. will not be processed until the following business day. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo
Primary Examiner
Art Unit 1745

gc

February 17, 2005

